Radar observations of meteors at ... S/831/62/000/008/001/016
E032/E114

experiments was ± 20° (vertical plane) and ± 17° (horizontal plane). The meteor velocities were measured by a diffraction method in which the velocities relative to earth were determined from signal amplitude fluctuations. Altogether 300 000 reflections from sporadic meteors were recorded and average diurnal variations in the number of meteors were obtained throughout the period. Fig.10 shows three typical distributions (number of meteors versus mean sidereal time). The velocity distributions were also determined as functions of time and are reproduced in the paper. Finally, the mass distribution of sporadic meteors was found from the lengths of the reflected pulses. It was found that

$$N = N_0 m^{s-1} \quad \text{where} \quad s \sim 2.$$

Owing to the large beamwidth, weak meteor showers could not be detected against the sporadic background. Brief details are given about the following showers which were the only reliably detected showers: Quadrantids, Lyrids, Geminids, η-Aquarids and Arietids (daytime). There are 16 figures.

Card 2/3

LULAKOV, I.F.

Pathogenesis of arterial hypoxemia in patients with mitral heart defect. Vest.khir. 84 no.1:63-67 Ja '60. (MIRA 13:10)

(MITRAL VALVE—DISEASES) (ANOXEMIA)

BELAKOV, I.F., kand.med.nauk

Pathogenesis of arterial hypotension in patients with hypertension. Terap.arkh. 33 no.1:14-18 '61. (MIRA 14:3)

1. Iz kafedry propedevtiki vnutrennikh bolezney (nach. - deystvitel'nyy chlen AMN SSSR prof. N.N. Savitskiy) Voyenno-meditsinskoy ordena Lenina akademii imeni S.M. Kirova.
(HYPERTENSION) (ANOXEMIA)

LULAKOV, I.F., kand.med.nauk (Leningrad)

Some main problems of respiratory insufficiency. Terap.arkh. 33 no.4:94-108 '61. (MIRA 14:5)
(RESPIRATION)

POKORNY, V.; NOVAK, E.; LULAYOVA, S.

Analysis of expenses for drugs in the pediatric clinic in Mlada Boleslav from the viewpoint of effective drug therapy. Cesk. pediat. 18 no.6:530-535 Je '63.

1. Detske oddeleni OUNZ v Mlade Boleslavi, vedouci MUDr. V. Pokorny.
(DRUG THERAPY) (PEDIATRICS)
(ECONOMICS, HOSPITAL)

LULCZYJEW, B.

POLAND/Nuclear Physics - Nuclear Reactions C-5

Abs Jour : Ref Zhur - Fizika, No 7, 1958, No 15150

Author : Dabrowski J., Lulczyjew B.
Inst : University of Warsaw, Poland
Title : Note on the $^{12}C(d,p)^{13}C$ Reaction Near the 4 Mev Resonance.

Orig Pub : Acta Phys. polon., 1957, 16, No 3, 231-234

Abstract : The authors have calculated the differential cross section of the reaction C^{12} (c,p) C^{13} near resonance at 4 Mev. The formula proposed by Thomas (Referat Zhur Fizika, 1958, No 3, 5487) is used. No account was taken in the calculation of the Coulomb scattering and of the potential scattering. It was assumed that the particles participating in the formation of the compound nucleus have the following values of momenta: $j_d = 2$, $j_p = 1$, and $j_n = 1$. The possible contribution of the momenta $j_d = 4$ and $j_p = 1$ were not taken into account. The total momenta $J = 3^-$ and the width $\Gamma = 0.5$ Mev were attributed to the excited level of the compound nucleus. The calculation was made in the Born and Butler approximation. The results

Card : 1/2

14

Abs Jour : Ref Zhur - Fizika, No 7, 1958, No 15150
0

obtained are compared with experimental data (Referat Zhur Fizika, 1956, No 11, 31198). It is noted that the assumption of the formation of the compound nucleus is not enough to explain the strong backward scattering of the protons, observed experimentally.

CONSTANTINESCU, P.; LULEA, C.; NICULESCU, S.

Algorism for determination of the nucleus of the graph associated with the Nim game. Studii cerc mat 15 no. 1:77-81 '64.

LULI, [illegible].

LULI, [illegible]. Technique for drying and handling tobacco. p.6.

Vol. 9, no. 8, August 1955 Tirane, Albania PER BUJQESINE SOCIALISTE

So: Monthly List of East European Accessions, (EEAL), LC, Vol. 5, No. 10, Oct. 1956

LULI, Q.

AGRICULTURE

Periodical: PER BUQUESINT SOCIALISTE.

LULI, Q. How to protect tobacco from frost and other effects of temperature. p. 11.
We should prepare tobacco seedlings in time. p. 12.

Vol. 13, no. 2, Feb. 1959.

Monthly List of East European Accessions (EEAI) LC, Vol. 8, no. 5
May 1959, Unclass.

YUGOSLAVIA/Diseases of Farm Animals. Diseases Caused by Viruses and Rickettsiae. R

Abs Jour: Ref Zhur-Biol., No 9, 1958, 40631.

Author : Lulic, V.
Inst :
Title : Production and Use of Lapinized Vaccine in Swine Pest.

Orig Pub: Veterin. glasnik, 1955, 9, No 10, 672-677.

Abstract: For the preparation of the vaccine a lyophilized strain of the lapinized pest virus was used, which was obtained after a long series of subinoculations on rabbits and which was checked for its sterility, harmlessness and immunogenic properties. The virus was intravenously injected into rabbits, who then were exsanguinated; from the blood and spleen mix-

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YUGOSLAVIA/Diseases of Farm Animals. Diseases Caused by Viruses and Rickettsiae.

Abs Jour: Ref Zhur-Biol., No 9, 1958, 40631.

ture, a 60 percent suspension with five percent of casein hydrolyzate was prepared. The vaccine was then titrated on pigs susceptible to it by intramuscular injections in doses of two ml and in solutions of 1:67, 1:134, 1:268, 1:536. Of 154 vaccinated pigs, 132 (85.72 percent) did not become sick after a control vaccination; 22 pigs (14.28 percent) who received injections in solutions of 1:268 and 1:536, became sick and were slaughtered. The dry vaccine which was kept in a thermostate, preserved its immunogenic properties for the duration of 101 days, and when kept at room temperature (20 to 30° [C]) for one year even. When inoculated and not inoculated (susceptible) pigs were jointly kept, it was demon-

YUGOSLAVIA/Diseases of Farm Animals. Diseases Caused by Viruses and Rickettsiae. R

Abs Jour: Ref Zhur-Biol., No 9, 1958, 40631.

strated that the vaccinated pigs do not secret inoculation viruses. The duration of immunity in vaccinated pigs is not less than 12 months. The above described vaccine was also used for the inoculation of 236,874 pigs of the territories of Croatia and Serbia. Not more than one percent of the animals showed a reaction after their vaccination; not more than 0.5 percent died. No reaction was noted in pigs which were incoulatad with the vaccine as well as with the serum.

Card : 3/3

JUNG, Mirko, dr.; VESENJAK-HIRJAN, Jelka, dr.; LULIC, Vladimir, dr.; MATJASIC, Marko, dr.; BLATNIK, Drago; SPALATIN, Josip, dr.; FRYDA-KAURIMSKY, Zeljko, dr.

Laboratory studies on the epidemic of poliomyelitis in Croatia in 1960. Lijecn. vjesn. 83 no.6:587-601 '61.

1. Iz Skole narodnog zdravlja "A.Stampar", Centralnog higijenskog zavod u Zagrebu, Seruvakcinalnog zavoda u Zagrebu i Centralnog Higijenskog zavoda u Ljubljani.
(POLIOMYELITIS epidemiol)

MASLOV, V.P.; LULIK, Ye.L.

A new tribe of Algae (Beresellaae) from the Carboniferous of the USSR. Dokl.AN SSSR 106 no.1:126-129 Ja '56. (MLRA 9:4)

1.Predstavleno akademikom N.M.Strakhovym.
(Algae, Fossil)

FASTOVSKAYA, E.I.; LULIKOVA, M.Ya.

Results of the restriction of DDT spraying to villages in malaria control within the border region of southern Tajikistan (Kirovabad District). Sbor. rab. po mal. i gel'min. no.2:49-56 '59. (MIRA 15:3)

(KIROVABAD DISTRICT--MALARIA)
(DDT (INSECTICIDE))

JAKAB, Zoltan; LULITY, Gergely

Remarks on Gabor Mezei's article "Hungarian problems of export packaging." Kozleked kozl 18 no.16:271-274 Ap '62.

LULLE-SZYSZKOWICZ, Irena

Prof. dr med. Ludwik Hirszfeld. Polski tygod. lek. 9 no.18:545-546 1 May 54.

(OBITUARIES,
Hirszfeld, Ludwik)

LULOV, G. R.

The following is among dissertations of the Leningrad Polytechnic Institute imeni Kalinin:

"Experimental Investigation of the Ventilation of Powerful Hydroelectric Generators of Umbrella Shape." 6 June 1949. The author studied in detail and generalized the results of a large number of tests of large hydroelectric generators. The results of the tests, both thermal and ventilation, were subjected to recalculation in accordance with a single procedure. An analysis was made of the heating up of individual parts of the machines, in connection with the analysis of the ventilation.

SO: M-1048, 28 Mar 56

Lulova, N.I.

Chromatothermographic analysis of hydrocarbon gases. E. I. Byzentsitskii, N. I. Lulova, A. I. Tarasov, and E. I. Zhukova. *Zavodskaya Lab.* 22, 1030-1031(1956).—Gas adsorption on a SiO_2 column and the subsequent combustion of the desorbed gases in an app. similar to that described by Turkel'taub, *et al.* (*C.A.* 48, 10476f), but with the desorption heater moving downward automatically by a special mechanism, was tested with a synthetic gas mixt. Best sepns. were obtained with SiO_2 contg. 6% H_2O, and a const. H_2O content of the desorbing air, when the air was humidified by passing it through a 40% H_2SO_4 soln. A table of results obtained with 9 mixts. gave correct results within 0.1-1.5% abs., except for butanes, where the error reached 2% in a high-C_4H_{10} mixt. W. M. Sternberg

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LuLovA, N.I.

5(2) SOV/32-25-7-12/50

AUTHORS: Tarasov, A. T., Kudryavtseva, N. A., Iogansen, A. V., Lulova, N. I.

TITLE: Automatic Analysis of Flowing Gases by Means of Chromatograph KhPA-1 (Avtomaticheskiy analiz gazov v potoke na khromatografe KhPA-1)

PERIODICAL: Zavodskaya laboratoriya, 1959, Vol 25, Nr 7, pp 803-805 (USSR)

ABSTRACT: In collaboration with the Collective V. R. Anders, P. A. Frolovskiy, V. F. Remnev, M. S. Slobodkin and Ye. S. Bulakh of the SKB of petroleum industry, an automatic chromatograph - gas analyser KhPA-1 was designed (Fig 1) for the purpose of controlling the composition of gas flows in technological processes of the petroleum refining industry and the petroleum chemical industry. The device provides a thermostating of the feeding analyser (at temperatures above room temperature), and the application of a detector of the heat conductivity. The separation columns can be exchanged according to the conditions of the analysis. A new column filling was used, composed of tripolite (from Zikeyev quarry) with an addition of paraffin-naphthene oil and soda. A separation of the hydrocarbons C_1-C_4 occurs after 6 - 17 minutes and that of the

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hydrocarbons C_1-C_5 after about 15 - 50 minutes in columns 4 - 6 m long and 6 mm in diameter, filled with the above mentioned substance, at temperatures between 40 - 20° and a flowing rate of the developing gas (nitrogen) of 2 - 8 l/hour. Ethane-ethylene cannot be separated. Sensitivity coefficients were determined and applied for the computation of the gas composition. The results of the analysis obtained by means of the appliance KhPA-1 were compared to those of the chromatograph Fraktovap (of the firm Carlo Erbe, Italy), (Table 1). The reproducibility of the results achieved in the analysis of industrial gases was also determined (Table 2). At present a test appliance KhPA-1 is being installed in the gas fractionating plant of the Novo-Ufimskiy neftepererabatyvayushchiy zavod (Novo-Ufimskiy Petroleum Refinery) for the automatic analysis of butane-butane fractions. The production of a test series of automatic industrial chromatographs KhPA-1 will be carried out in Moskovskiy zavod KIP (Moscow Works KIP) in 1959. There are 2 figures, 2 tables, and 2 references, 1 of which is Soviet.

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ASSOCIATION: Vsesoyuznyy institut po pererabotke nefti i gaza i polucheniyu iskusstvennogo zhidkogo topliva (All-Union Institute for the Refining of Petroleum and Gas, and for the Production of Artificial Liquid Fuels)

Card 3/3

TARASOV, Aleksey Issarionovich. Prinimali uchastiye: KUZ'MINA, A.V.; ZIMINA, K.I.; POLYAKOVA, A.A.; IOGANSEN, A.V.; FROLOVSKIY, P.A.; LULOVA, M.I.. L'VOVA, L.A., vedushchiy red.; MUKHINA, E.A., tekhn.red.

[Gases obtained in petroleum refining and methods of their analysis] Gazy neftepererabotki i metody ikh analiza. Moskva, Gos.nauchno-tekhn.izd-vo neft. i gorno-toplivnoi lit-ry, 1960. 222 p. (MIRA 13:2)
(Petroleum--Refining) (Gases--Analysis)

TARASOV, A. I.; LULOVA, N. I.; KUDRYAVTSEVA, N. A.; ZEMSKOVA, Ye. I.

Chromatographic gas analyzer for laboratories. Izm. tekh. no.8:47-49 Ag '60. (MIRA 13:9)

(Gases—Analysis)

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E194/E135

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AUTHORS: Lulova, N.I., Piguzova, L.I., Tarasov, A.I., and Fedosova, A.K.

TITLE: Checking the quality of synthetic samples of molecular sieve type adsorbents by gas chromatography

PERIODICAL: Khimiya i tekhnologiya topliv i masel, 1961, No.8, pp. 59-63

TEXT: The VNII NP (All-Union Scientific Research Institute of the Petroleum Industry) is developing molecular sieve adsorbents and in this connection it was necessary to develop a method for assessing the quality of samples of molecular sieves. The method is based on the possibility of chromatic separation on molecular sieves of such components as oxygen and nitrogen, which are not separated by other adsorbents. The instrument used was a standard chromatograph type ХЛ-3 (KhL-3) which was described in an article by P.A. Frolovskiy (Ref.4: Khimiya i tekhnologiya topliv i masel, No.7, 1961, pp. 44-49). Samples of molecular sieve were charged into the chromatograph column, which was 1 m long, 6 mm in diameter, with a thermostat temperature of 40-45 °C.

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Checking the quality of synthetic ...

Hydrogen was passed at a rate of 120 mℓ per minute and argon at 40 mℓ per minute. The weight of zeolite in the column was 21 g. The tests were made with a standard four component gas mixture:

Oxygen	2.0 - 4.0 % volume
Nitrogen	7.5 - 15.0 % volume
Methane	60.0 - 65.0 % volume
Carbon monoxide	21.0 - 25.0 % volume

Linde molecular sieves grade 5Å (5A) gave clear separation of all components of this mixture under the stated conditions in three minutes. Each newly synthesized specimen of zeolite was tested under analogous conditions to obtain identical chromatograms in analysing this gas mixture. This method of checking molecular sieves is simple and quick. A considerable number of zeolite samples were tested in various stages of synthesis and those which gave good results in gas adsorption chromatography were also good in other analyses such as X-ray analysis and determination of water content. In order to compare the degree of activity of different samples certain chromatographic parameters were worked out, namely, the retention volume, the Henry coefficient and the separation factor, all of which are very suitable for general

Checking the quality of synthetic ...

characterisation of adsorbents. The gas chromatography method was also used to check qualitative changes in adsorbents during the process of heat treatment. Reactivation by heat treatment was carried out at various temperatures: results were good at 650 °C, better at 700 °C, but raising the temperature to 800 °C decreased the activity of the molecular sieve.

There are 3 figures, 2 tables and 8 references: 4 Soviet and 4 English. The English language references read:

Ref.1: Petroleum Refiner, Vol.38, No.37, 136-140, 1957.
Ref.3: S.A. Green, M.L. Moberg, E.M. Wilson. Anal. Chem. No.9, 1369-1370.
Ref.5: R.M. Barrer. Trenst Chem. B.C. Vol.35, 21/22.
Ref.2: R. Miltor. Adsorbents of the Molecular-sieve Type, American Patent No. 2882244, 14.4.59.

ASSOCIATION: VNII NP

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Z/011/62/019/008/001/003
E073/E435

AUTHORS: Lulova, N.I., Piguzova, L.I. et al

TITLE: Investigation of adsorbents of the molecular sieves type by means of gas chromatography

PERIODICAL: Chemie a chemická technologie. Přehled technické a hospodářské literatury, v.19, no.8, 1962, 366, abstract Ch 62-4958. (Khimiya i tekhnologiya topliv i masel, v.7, no.5, 1962, 70-73)

TEXT: Gas chromatography was used for examining the efficiency of molecular sieves NaX, CaX of the sodium type, calcium type and the sieves partly converted from the sodium to the calcium type and for studying the effect of synthesis conditions on their physical and chemical properties. Another possible application is for monitoring the quality of molecular sieve samples. Examples of chromatographic tests are given. 6 figures, 5 references.

[Abstracter's note: Complete translation.]

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S/204/62/002/006/007/012
E075/E192

AUTHORS: Lulova, N.I., Tarasov, A.I., Kuz'mina, A.V., and Koroleva, N.M.

TITLE: Chromatographic analysis of ganeous streams on the ethylene plant

PERIODICAL: Neftekhimiya, v.2, no.6, 1962, 885-891

TEXT: Analyses of liquified gases and methane and ethylene determination in the light hydrocarbon distillate, and determination of C_2 hydrocarbons and propane in propane-propylene fractions were carried out using the reverse flow method in a modified chromatograph ХПА-2 (KhPA-2). For the liquified gas (C_3 - 40 to 60%; C_4 - 20 to 40%; C_5 - 10%), best results were obtained on silica gel МСМ (MSM) treated with 1.5 wt.% soda and 13% glycerine, or on Inza brick treated with 20 wt.% propylene glycol. For the light condensate silica gel АСК (ASK) treated with 0.5% soda and 2% glycerol was found to be the most satisfactory column. It separated adequately ethylene and ethane, the fuel analysis time being 4 - 4.5 min. The best column for the determination of CH_4 in the propane-propylene fraction was

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Chromatographic analysis of gaseous... S/204/62/002/006/007/012
L075/B192

silica-alumina, for the determination of propane modified silica gel ASK or activated alumina, for the determination of C_2 hydrocarbons activated alumina or silica-alumina. The time of analysis in all cases did not exceed 4 – 5 min.
There are 5 figures and 4 tables.

ASSOCIATION: Vsesoyuznyy nauchno-issledovatel'skiy institut po pererabotke nefti i gaza i polucheniyu iskusstvennogo zhidkogo topliva
(All-Union Scientific Research Institute for the Distillation of Petroleum and Gas and the Production of Synthetic Liquid Fuel)

SUBMITTED: May 22, 1962

Card 2/2

LULOVA, N.I.; TARASOV, A.I.; FEDOSOVA, A.K.; LEONT'YEVA, S.A.

Use of gas chromatography for investigating gases and light gasolines. Khim.i tekh.topl.i masel 7 no.9:14-19 S '62. (MIRA 15:8)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut po pererabotke nefti i gazov i polucheniyu iskusstvennogo zhidkogo topliva.
(Hydrocarbons) (Gas chromatography)

FROLOVSKIY, P.A.; Prinimali uchastiye: ANDERS, V.R.; REMNEV, V.F.; BULAKH, Ye.S.; KHURSHUDYANTS, I.K.; YATSENKO, P.G.; TARASOV, A.I.; IOGANSON, A.V.; LULOVA, N.I.; KURDRYAVTSEVA, N.A.

Kh.L-3 laboratory chromatograph. Khim. i tekh.topl.i masel 6 no.7:44-49 Jl '61. (MIRA 14:6)

1. Spetsial'noye konstruktorskoye byuro po avtomatike v neftepererabotke i neftekhimii.
(Gas chromatography)

LULOVA, N.I.; PIGUZOVA, L.I.; TARASOV, A.I.; FEDOSOVA, A.K.

Gas chromatography used for investigating adsorbents of molecular sieve type. Khim.i tekh.topl.i masel 7 no.5:70-73 My '62. (MIRA 15:11)
(Adsorbents) (Gas chromatography)

LAUDUA, N.I.

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PHASE I BOOK EXPLOITATION SOV/6246

Soveshchaniye po tseolitam. 1st, Leningrad, 1961.

Sinteticheskiye tseolity; polucheniye, issledovaniye i primeneniye (Synthetic Zeolites: Production, Investigation, and Use). Moscow, Izd-vo AN SSSR, 1962. 286 p. (Series: Its: Doklady) Errata slip inserted. 2500 copies printed.

Sponsoring Agency: Akademiya nauk SSSR. Otdeleniye khimicheskikh nauk. Komisiya po tseolitam.

Resp. Eds.: M. M. Dubinin, Academician and V. V. Serpinskiy, Doctor of Chemical-Sciences; Ed.: Ye. G. Zhukovskaya; Tech. Ed.: S. P. Golub'.

PURPOSE: This book is intended for scientists and engineers engaged in the production of synthetic zeolites (molecular sieves), and for chemists in general.

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Synthetic Zeolites: (Cont.)

SOV/6246

COVERAGE: The book is a collection of reports presented at the First Conference on Zeolites, held in Leningrad 16 through 19 March 1961 at the Leningrad Technological Institute imeni Lensovet, and is purportedly the first monograph on this subject. The reports are grouped into 3 subject areas: 1) theoretical problems of adsorption on various types of zeolites and methods for their investigation, 2) the production of zeolites, and 3) application of zeolites. No personalities are mentioned. References follow individual articles.

TABLE OF CONTENTS:

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SOV/6246

Synthetic Zeolites: (Cont.)

LULOVA, N.I.; TARASOV, A.I.; FEDOSOVA, A.K.; LEONT'YEVA, S.A.; KVASOVA, V.A.

Analysis of the wide fractions of straight-run gasoline by gas-liquid chromatography. Khim. i tekh. topl. i masel 8 no.12: 21-28 D '63. (MIRA 17:1)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut po pererabotke nefti i gazov i polucheniyu iskusstvennogo zhidkogo topliva.

LULOVA, N.I.; TARASOV, A.I.; KUDRYAVTSEVA, N.A.; ZEMSKOVA, Ye.I.

Chromatographic method of analysis of gases of petroleum refining.
Trudy Kom.anal.khim. 13:238-246 '63. (MIRA 16:5)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut po pererabotke nefti i gazov i polucheniyu zhidkogo topliva.
(Petroleum refining) (Gas chromatography)

LÜLOVA, N.I.; TARASOV, A.I.; KUZ'MINA, A.V.; KOROLEVA, N.M.

Chromatographic analysis of gas flows on a unit for obtaining ethylene. Neftekhimiia 2 no.6:885-891 N-D '62. (MIRA 17:10)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut po pererabotke nefti i gaza poluchcniyu iskusstvennogo zhidkogo topliva.

LULOVA, N.I.; DIMOV, N.; LEONT'YEVA, S.A.

Selection of liquid phases for high-temperature gas chromatography. Khim. i tekh. topl. i masel 10 no.8:56-59 Ag '65. (MIRA 18:9)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut po pererabotke nefti i gazov i polucheniyu iskusstvennogo zhidkogo topliva.

KUDRYAVTSEVA, N.A.; TARASOV, A.I.; LULOVA, K.T.; SHCHERBANOVA, A.I.

Selecting the optimum conditions of chromatographic separation for fillers made from Atkeev deposit cripoli. Khim. i tekh. topl. i masel 10 no.10:55-58 O '65. (MIRA 18:10)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut po pererabotke nefti i gazov i polucheniyu tekhnicheskogo zhidkogo topliva.

LULAKOV, I.F. (Leningrad)

Pathogenesis of arterial hypoxemia in patients with pulmonary emphysema. Klin.med. 39 no.2:116-121 F '61. (MIRA 14:3)

1. Iz kafedry propedevtiki vnutrennikh bolezney (nach. - deystvitel'nyy chlen AMN SSSR, zasluzhennyy deyatel' nauki prof. N.N. Savitskiy) Voyenno-meditsinskoy ordena Lenina akademii imeni S.M. Kirova.
(EMPHYSEMA, PULMONARY) (ANOXEMIA)

LUMBAROV, Stefan, inzh.; IVANOV, Edo

Increasing the size of bobbins by unifying the shuttles of the looms for woolen fabrics. Tekstilna prom 11 no.4:39-40 '62.

KOCHANKOV, D.; MADZHAROV, G.; KUNCHEV, N.; TSVETKOV, T.; DIMCHEVA, L.; KOSTOVA, K.; LUMBARSKI, Vl.

Sanatorial therapy of diabetes at Bankia spa. Suvrem. med. Sofia 8 no.3: 37-43 1957.

1. Iz. Sanatorium No. 2 - MSKU - Bankia (Gl. lekar: d-r D. Kochankov).
(DIABETES MELLITUS, therapy,
sanatorial (Bul))

L 13454-66 EWT(d)/FBD/FSS-2/EWT(1)/EWP(m)/FS(v)-3/EEC(k)-2/EWA(d)/T/EWP(1)/EWA(c

ACC NR: AT6003575 IJP(c) GW/BC SOURCE CODE: UR/0000/65/000/000/0237/0256

AUTHOR: Lumbovskaya, T. N.

ORG: none

TITLE: Calculation by successive approximations of the trajectory of multistage rockets guided by the beam-rider method

SOURCE: Issledovaniya po dinamike poleta (Research on flight dynamics), no. 1. Moscow, Izd-vo Mashinostroyeniye, 1965, 237-256

TOPIC TAGS: flight dynamics, multistage guided rocket, beam rider method, rocket trajectory

ABSTRACT: It is shown that the problem of determining the trajectory of a rocket guided to a moving target by the beam-rider method can be reduced to the simultaneous solution of a system of nonlinear differential equations describing the motion of the rocket and the kinematic equations of the guidance method. The author stresses that solving such a system by numerical methods is a laborious task and that the obtained solution does not show a general principle of the motion of the rocket and of the target because it depends on initial conditions of motion and the aerodynamic and structural parameters of the rocket. A grapho-analytic method based on the method of successive approximations is proposed for determining the trajectory of a multistage rocket guided to a target. By linearizing the kinematic equation of the beam-rider

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ACC NR: AT6003575

method and integrating, the following expression for determining the trajectory of the rocket is derived:

$$\varepsilon = \frac{V_c}{H_c}\frac{\sin^2\beta}{V}\left(\frac{H_0 \cdot r_{c0}}{H_c} + \int_0^t V dt\right).$$

where ε is the lead angle (the angle between the radius vector and the velocity vector of the rocket); V_c is the velocity of the target; H_c is the altitude of the target; β is the angle between the radius vector and the horizontal plane; H_0, r_{c0}, and V are the altitude of the rocket, its distance from the guidance system, and the velocity of the rocket at the initial instant of guidance, respectively. Expression (1) contains the function $V(t)$ and, therefore, the problem of calculating the trajectory can be solved in quadratures, when the law of variation of velocity in time is known. Assuming that variation of the velocity in time is linear, the first approximation to the solution of the problem is derived. The methods of graphical integration are used for determining flight parameters. On the basis of first approximation formulas, an algorithm for successive approximation of trajectory parameters is presented. It is noted that in order to calculate the parameters for each stage of a rocket, it is sufficient to confine oneself to second-approximation formulas; third-approximation results are very close to or even coincidewith the results of the second approximation. Orig. art. has: 7 figures and 26 formulas. [LK]

SUB CODE: 01/ SUBM DATE: 02Aug65/ ORIG REF: 007/ ATD PRESS: 4186

Card 2/2

LUMEL 'SKIY, V. F.

Lumel 'skiy, V. F. - "The economic problem in the chemical utilization of natural gas," Trudy Sarat. ekon. in-ta, Vol II, 1949, p. 175-82

SO: U-5240, 17, Dec. 53, (Letopis 'Zhurnal 'nykh Statey, No.25, 1949).

5(4)

AUTHORS: Nikolayeva, S. A., Lumi, L. SOV/76-32-10-19/39

TITLE: Investigation of the Dissolution Rate and the Steady Potential of Zinc Amalgam in Hydrochloric Acid (Issledovaniye skorosti rastvoreniya i statsionarnogo potentsiala amal'gamy tsinka v solyanoy kislote)

PERIODICAL: Zhurnal fizicheskoy khimii, 1958, Vol 32, Nr 10, pp 2356 - 2361 (USSR)

ABSTRACT: The present paper is in direct relation to a number of publications written under the supervision of Professor Ya.V.Durdin (Refs 1-6). K.A.Dvorkin and Ya.V. Durdin (Refs 5,6) carried out a detailed investigation of the dissolution kinetics of metallic zinc. To avoid the influence of an uneven surface the dissolution kinetics of zinc amalgam were investigated in the present case. The spectral analyses of the reagents used were made at the kafedra analiticheskoy khimii Tartuskogo gosudarstvennogo universiteta (Chair of Analytical Chemistry of Tartu State University) by

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the head of the laboratory, E.Pedak. The rate of dissolution of zinc amalgam was investigated at concentrations of 0,5 to 5 N HCl. The quantity of the steady potential becomes more negative with an increase in concentration of the hydrochloric acid. Experiments concerning the influence of mixing on the rate of dissolution showed that this influence is rather strong with solutions of higher concentrations. The change of the rate of dissolution is connected with a change of the steady potential (according to Tafel's equation). The mean value of the temperature coefficient amounts to 2,1. On an addition of $ZnCl_2$ the potential becomes more positive and the rate of dissolution decreases, whereas an addition of KCl has the opposite effect. The experimental data obtained show a similarity to those of cadmium dissolutions in hydrochloric acid (Ref 4). In the papers by L.Kish (Ref 12) and V.I.Kravtsov and I.S. Loginova (Ref 13) an explanation of the dissolution

kinetics is given. In the papers by Durdin (Ref 3) comparisons of the so-called "Relative Increase of the Velocity of Processes" were made with chromium, and in the papers by Ya.V.Durdin and S.A.Nikolayeva (Ref 4) with cadmium. The dissolution rate of zinc amalgam is determined by the velocity of the cathodic process of the hydrogen formation in the case of a steady potential and a certain concentration of the zinc ions in the dissolved amalgam surface. The data on the cathodic process of hydrogen formation were taken from the paper by Z.A.Iofa and V.A.Stepanova (Ref 10), and those for zinc from K.A.Dvorkin (Ref 6). The course of the cathodic process on amalgams differs only little from that for pure mercury, according to Bockris (Bokris) (Ref 14). There are 1 figure, 5 tables, and 14 references, 11 of which are Soviet.

Investigation of the Dissolution Rate and the Steady Potential of Zinc Amalgam in Hydrochloric Acid

SOV/76-32-10-19/39

ASSOCIATION: Gosudarstvennyy universitet, Tartu (Tartu State University)

SUBMITTED: May 13, 1957

Card 4/4

LUMIR MACHOLAN

CZECHOSLOVAKIA/Organic Chemistry. Natural Substances and Their Synthetic Analogs. G

Abs Jour: Ref. Zhur-Khimiya, No 19, 1958, 64623.

Author : Macholan Lumir
Title : Aminoketocarboxylic Acis. V. On the Problem of the Biogenesis of Alkaloids of the Chinazoline Type.
Inst :

Orig Pub: Chem. listy, 1957, 51, No 11, 2122-2128.

Abstract: In vitro experiments have shown that glyoxalic (I) and alpha-oxo- δ -aminovaleric (II) acids can, during the biosynthesis of alkaloids, sometimes replace the suggested aldehydes, CH_2O and γ -aminobutyraldehyde. The interaction of I with $O\text{-}NH_2C_6H_4CHO$ (III) and either ammonia or methylammonia salts, leads, in all probability,

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CZECHOSLOVAKIA/Organic Chemistry. Natural Substances and Their Synthetic Analogs. G

Abs Jour: Ref. Zhur-Khimiya, No 19, 1958, 64623.

to an aqueous solution of betaine 1,2-alpha-dihydroquinazolinine-2-carboxylic acid, or the 3-methyl-derivative, from which oxidation with $K_3[Fe(CN)_6]$ yields quinazoline or 4-hydroxy-3-methyl-3,4-dihydroquinazoline. Similarly, from (II) and (III) are produced the betaines 2,3-trimethylene-1,2-dihydroquinazolinic-2-carboxylic acid (hydrochloride), which is changed without separation by hydrogenation and oxidation by (IV) into 2,3-trimethylene-3,4-dihydroquinazoline (desoxyvasicine) (V), with a very high yield. From these results, it follows that for the biosynthesis of vasicine, one must assume in the quality of intermediates either beta-oxy-(II) or (II), and the biological hydrolysis of (V). Placing (I) together with (III) for 15 hours and CH_3COONH_4 in a phosphate

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CZECHOSLOVAKIA/Organic Chemistry. Natural Substances and Their Synthetic Analogs. G

Abs Jour: Ref. Zhur-Khimiya, No 19, 1958, 64623.

buffer under the following pH, then adjusting the pH to 7.5-8, then adding (IV) and letting stand for 24 hours at 20°, yields quinazoline, m.p. 48°, b.p. 235°; picrate, m.p. 188-189°, yield according to pH as follows (pH first, then yield in %): 5.5, 70.8; 6.0, 73.5; 6.5, 74.0; 7.0, 75.5; 8.0, 77.7. The picrate is derived by letting stand for 24 hours at 20° with CrO_3 in CH_3COOH; the picrate produced is quinazoline-4, m.p. 203-204°, from which can be extracted the base, m.p. 215-216°. In the same manner, from (I) and (III) with CH_3NH_2.HCl, is synthesized 4-hydroxy-3-methyl-3,4-dihydroquinanzoline, yield (at pH 7.0) 80%, m.p. 164-165°; picrate, m.p. 180-181°. The action of (IV) during 6 days at 20° yields to the picrate of 3-methylquinazoline-4,

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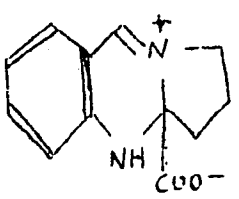
yield 12%, m.p. 210-211°. From a solution of the hydrochloride of (II), after adding (III) and an aqueous solution of acetone, there separates out after 3 hours at 20° the hydrochloride of 2,3-trimethylene-1,2-dihydroquinazoline-2-carboxylic acid (VI acid), yield 89%, m.p. 180-182°; picrate, m.p. 150-151°. (VI) and (IV) in aqueous solution at pH 7.2, after 5 hours at 20°, give 4-hydroxy-2,3-triethylene-3,4-dihydroquinazoline, yield 86%, m.p. 175-176°; picrate, $C_{17}H_{13}O_7N_5 \cdot C_2H_5OH$, m.p. 146-147°. Longer interaction (3 days) of (IV) and (VI) at 25°, leads to 2,3-trimethylene-quinazol-4, m.p. 110-111°, picrate m.p. 185-186°, which was also derived by oxidizing the picrate of (V) with CrO_3 in CH_3COOH. Upon hydrogenation of (VI) over $Pd/BaSO_4$

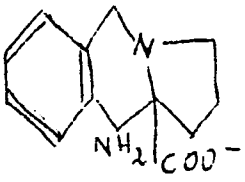
CZECHOSLOVAKIA/Organic Chemistry. Natural Substances and Their Synthetic Analogs. G

Abs Jour: Ref. Zhur-Khimiya, No 19, 1958, 64623.

in water at 18°, there is produced the hydrochloride of 2,3-trimethylene-1,2,3,4-tetrahydroquinazoline-2-carboxylic acid (VII), yield 93%, m.p. 150-151°, which, with (IV) at pH 7.5



(VI)



(VII)

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CZECHOSLOVAKIA/Organic Chemistry. Natural Substances and Their Synthetic Analogs. G

Abs Jour: Ref. Zhur-Khimiya, No 19, 1958, 64623.

gives the hydroferrocyanide of (V) ($C_{11}H_{12}N_2$) $\cdot H_4[Fe(CN)_6]$. This substance was also synthesized indirectly out of (VI) without separating out the preceding intermediate products to yield 95%, picrate m.p. 206-207°; the free bases of (V) m.p. 96-97° were derived from the picrate. (V) was also synthesized by the above described steps, without separation of the intermediate products, directly from an aqueous solution of (II). Yields varied with the pH at the first stage of the process (pH first, then yield in %): 5.5, 85.3; 6.0, 86.5; 6.5, 87.4; 7.0, 86.9; 8.0, 78.6. For a report on Part IV, see RZhKhim, 1958, 39553.

Card : 6/6

20-2-7/60

AUTHOR: Lumiste, Yu. G.

TITLE: On the Geometrical Structure of the Complex Analytical Surface V_{2n} Within the Space R_{2N} (O geometricheskom stroyenii kompleksno-analiticheskoy poverkhnosti V_{2n} v prostranstve R_{2N})

PERIODICAL: Doklady Akademii Nauk SSSR, 1957, Vol. 114, Nr 2, pp.259-262 (USSR)

ABSTRACT: As a complex-analytical surface V_{2n} within the Euclidian space R_{2N} a surface is described, which in the orthogonal coordinates x^J, $x^{\bar{J}}$, $(J = 1, \ldots, N, \bar{J}=N \pm J)$ may be represented by the equations $x^J+ix^{\bar{J}} = f^J(u^k+iu^{\bar{k}})$, $(k = 1,\ldots,n)$. Here $f(w^k)$ denote analytical functions of the n complex variables $w^1, \ldots, w^n$. Previous papers, especially dealing with the cases n = 1 and N = 2 are cited. The present report gives a geometrical characteristic of the complex-analytical surface V_{2n} in R_{2N}. The complex-analytical surface V_{2n} in R_{2N} is here looked upon as an image of the analytical surface W_n of the unitary space $U_N(i)$ at an isometric image

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On the Geometrical Structure of the Complex Analytical Surface V_{2n} Within the Space R_{2N}

$U_N(i) \rightarrow R_{2N}$. The following theorem is given. The real non-isotropic surface V_{2n} in the Euclidian space R_{2N} is then and only then complexly analytical, if the following applies. 1) It is the surface of the transfer of the two imaginary complexly conjugated, totally isotropic analytical surfaces X_n and $\overline{X}_n$. 2) The surfaces X_n, $\overline{X}_n$ are located correspondingly in two plane generatrices I_n, $\overline{I}_n$ of an isotropic cone, which intersect each other only at one point of the surface. The complex-analytical surface V_{2n} accordingly belongs to the class of the minimum surfaces with two isotropic conjugating directions I_n and $\overline{I}_n$. The surface V_{2n} satisfies a certain condition, which is a generalization of the condition by Komerell-Eisenhart.

ASSOCIATION: Moscow State University imeni M. V. Lomonosov and State University Tartu (=Dorpat, Esthonia) (Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova i Tartuskiy gosudarstvennyy universitet)

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20-2-7/60

On the Geometrical Structure of the Complex Analytical Surface V_{2n} Within the Space R_{2N}

PRESENTED: December 3, 1956, by P. S. Aleksandrov, Academician

SUBMITTED: November 30, 1956

AVAILABLE: Library of Congress

Card 3/3

AUTHOR: Lumiste, Yu. G. 20-114-4-7/63

TITLE: On Surfaces V_n With Multidimensional Isotropic Conjugated Directions in Spaces R_N or S_N (O poverkhnostyakh V_n s mnogomernymi izotropnymi sopryazhennymi napravleniyami v prostranstvakh R_N ili S_N)

PERIODICAL: Doklady Akademii Nauk SSSR, 1957, Vol. 114, Nr 4, pp. 702-705 (USSR)

ABSTRACT: A surface V_n in the Euclidean space R_N or in the non-Euclidean space S_N is described as "surface with a completely tangential system of isotropic conjugating directions", its tangential plane at any point M has totally isotropic directions I^χ with the dimension number $p_\chi (\chi = 1,\ldots,k)$, $\sum_{\chi=1}^{k} p_\chi = n$.

These directions are not permitted to lie entirely on a surface with the dimension number $m < n$ and are polarly weakly conjugated. For the case n=2 the class of these surfaces is identical with the class of the minimum V_2. The present paper now obtains some results for the general case. To the surface V_n a movable axial cross is associated in such a manner that the vectors $e_{i\chi}$ are located in the directions I^χ and the vectors e_α

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are located in the plane normal to V_n. The directions I^χ are now subdivided into the highest possible groups in such a manner that the directions of one group are located in smallest possible common plane generatrix J^ς ($\varsigma = 1,\ldots,r$) of the isotropic cone. Theorem: A nonisotropic surface V_n with a totally tangential system of isotropic conjugated directions and a maximum n_1 exists in a non-Euclidean space only at n=2. In an Euclidean space it exists also at $n \geq 2$ and is then a transmission surface of its total isotropic subsurfaces which are enveloped by the directions J^ς. These subsurfaces in turn split up into subsurfaces which are enveloped by the directions I^χ. The proof of this theorem follows next. A surface V_n with a totally tangential system of isotropic conjugated directions must be a minimum only if two directions J^1 and J^2 with an equal dimension number exist. In this case the surface has certain properties which extend the properties of the minimum V_2 to V_3. There are 6 references, 4 of which are Slavic.

ASSOCIATION: Moscow State University imeni M. V. Lomonosov (Moskovskiy

On Surfaces V_n With Multidimensional Isotropic Conjugated Directions in Spaces R_N or S_N 20 114-4-7/63

gosudarstvennyy universitet im. M. V. Lomonosova)

PRESENTED: December 22, 1956 by P. S. Aleksandrov, Member, Academy of Sciences, USSR

SUBMITTED: December 21, 1956

Card 3/3

LUMISTE, Yu. G. Cand Phys-Math Sci -- (diss) "On p-measure surfaces with conjugate or asymptotic areas of r-directions." Mos, 1958. 6 pp (Mos Order of Lenin and Order of Labor Red Banner State Univ im M. V. Lomonosov), 150 copies (KL, 11-58, 112)

16(1)
AUTHOR: Lumiste, Yu. G. SOV/140-59-1-10/25

TITLE: On n-Dimensional Surfaces With Asymptotic Fields of p-Directions (O n-mernykh poverkhnostyakh s asimptoticheskimi polyami p-napravleniy)

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Matematika, 1959, Nr 1, pp 105-113 (USSR)

ABSTRACT: The author joins the investigations of Cartan [Ref 1] and Ryzhkov [Ref 2] and considers surfaces F_n with asymptotic fields of direction in the N-dimensional projective space P_N (here a field of direction tangential to F_n is called asymptotic if in every point $M_o \in F_n$ its direction is the plane generating line of the intersection of the asymptotic base cones). The author gives some partly not new results on the fibering of the F_n and similar questions. His elaboration partly overlaps with that of Muracchini [Ref 4].
There are 5 references, 3 of which are Soviet, 1 French, and 1 Italian.

ASSOCIATION: Tartuskiy gosudarstvennyy universitet(Tartu State University)
SUBMITTED: December 17, 1957
Card 1/1

16(1)..

AUTHOR: Lumiste, Yu.G. SOV/140-59-3-17/22

TITLE: On Three-Dimensional Surfaces With Three Orthogonal Families of Asymptotics

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Matematika, 1959, Nr 3, pp 173-185 (USSR)

ABSTRACT: The author considers a class of three-dimensional surfaces with three families of orthogonal asymptotics which may be straight lines. The consideration is made in proper Euclidean and proper non-Euclidean spaces which are understood as metrized projective spaces. In the §§1 and 2 the author establishes the system of differential equations describing the considered surfaces. Since the proof of compatibility of the system is very difficult, the author restricts himself to two of the possible four cases. In §3 the author considers surfaces V_3 in the R_n or S_n $(6 \leq n \leq 7)$ fibred along the asymptotics of the three orthogonal families. It is proved that only one surface V_3 in the elliptic S_7 which is described by a certain minimal surface V_2 in the S_3, has this

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On Three-Dimensional Surfaces With Three Orthogonal Families of Asymptotics SOV/140-59-3-17/22

property. In §4 it is shown that V_3 with three orthogonal families of rectilinear asymptotic lines are possible in elliptic spaces S_4, S_6 and S_7 only. The author uses own earlier results [Ref 3].
There are 4 references, 3 of which are Soviet, and 1 Italian.

ASSOCIATION: Tartuskiy gosudarstvennyy universitet (Tartu State University)

SUBMITTED: March 10, 1958

Card 2/2

LUMISTE, Yu.G. [Lumiste, J.] (Tartu)

Differential geometry of ruled V_3 hypersurfaces in R_4
Mat.sbor. 50 no.2:203-220 F '60.
(MIRA 13:6)

(Geometry, Differential)

LUMISTE, Yu.G. (Tartu)

Multidimensional ruled surfaces in Euclidean space. Mat. sbor. 55 no.4:411-420 D '61. (MIRA 15:3)
(Surfaces, Ruled)

LUMISTE, Ülo; GARŠNEK A., red.

[Differential geometry] Diferentsiaalgeomeetria. Tallinn, Eesti Riiklik Kirjastus, 1963. 235 p. [In Estonian]
(MIRA 17:6)

LUMISTE, Yu. [lumiste, U.]

Models of betweenness. Izv. AN Est. SSR. Ser. fiz.-mat. i tekh. nauk 13 no.3:200-209 '64. (MIRA 17:11)

1. Tartu State University.

TUUIMETS, L.; LUMISTE, Yu. [Lumiste, U.], dotsent

Flexure of a minimal V_3 congruence in an R_4 space. Izv. AN Est. SSR. Ser. fiz.-mat. i tekh. nauk 13 no.3:210-216 '64. (MIRA 17:11)

1. Tartu State University.

LUMISTE, Yu.G. (Tartu)

The mean surface of congruence of planes in affine space. Izv.vys. ucheb.zav.; mat. no.5:86-98 '65. (MIRA 18:10)

LUMISTE, Yu.G. (Tartu)

Invariant equipment of congruences of planes in affine space. Izv.vys.ucheb.zav.; mat. no.6:93-102 '65.
(MIRA 19:1)

1. Submitted April 13, 1965.

LUMKIEWICZ J.

LUMKIEWICZ, J.

The supreme command of the Polish Armed Forces abroad in the years 1939-1945. (to be contd.)

p. 42 (Bellona) No. 2, Apr./June 1957, Poland

SO: MONTHLY INDEX OF EAST EUROPEAN ACCESSIONS (EEAI) LC, VOL. 7, NO. 1. JAN. 1958

BASKAKOV, A.P.; LUMMI, A.P.

Hydrodynamics of an apparatus for drying and dehydration of fine granular materials in a fluidized bed with a solid heat carrier. Khim.prom. no.11:844-846 '63. (MIRA 17:4)

LUMNITZER, GY.

Hungarian Technical Abst.
Vol. 6 No. 1
1954

63. **Enzymological investigation of artificially fermented tobaccos** — *Szabolcsi dohányok mesterséges fermentálásának enzimológiai vizsgálata* — P. Tolnay and Gy. Lumnitzer. (Food Industry — *Élelmezési Ipar* — Vol. 7, 1953, No. 2, pp. 58–63, 7 figs.)

Samples were taken (a) from bales of tobacco grown in the *Szabolcs* region, before and after chamber fermentation and after six weeks of storage; (b) from tobacco leaves also from the same region, before and after mechanical treatment and several times at given intervals from bales during subsequent fermentation. Invertase, amylase and polyphenoloxidase activities as well as the oxygen indices, reducing substances and polyphenol compounds were determined in each of the samples. It was observed that a more sensitive indication is given of the progress of fermentation by enzymic activity measurements than by substrates. The activity of the mentioned enzymes decreased greatly during chamber fermentation while during storage practically no change occurred. A strong inactivation of the enzymes and a decrease of the oxygen index could be observed during mechanical treatment. Changes in temperature and biological changes were found to be independent of each other during fermentation. It appears that the determination of the oxygen index and also that of polyphenoloxidase and invertase activities furnish appropriate data for the control of fermentation. *P. T.*

BASKAKOV, A. P.; VERSHININA, V. S.; LUK'YANOV, A. P.; PAKHALUYEV, V. M.

"Heat transfer and vertical heat conductivity of a packing fluidized bed of fine-grained material."

report submitted for 2nd All-Union Conf on Heat & Mass Transfer, Minsk, 4-12 May 1964.

Ural' Branch, AS USSR.

BASKAKOV, A.P.; ANTIFEYEV, V.A.; [illegible], A.F.

Use of a thermosonde in studying local heat transfer in a spouting layer. Inzh.-fiz. zhur. 10 no.1:16-21 Ja '66. (MIRA 19:2)

1. Ural'skiy politekhnicheskiy institut im. S.M. Kirova, Sverdlovsk. Submitted January 12, 1965.

LUMNITZER, Gyorgyi, dr.

Reducing the quality fluctuation of cigarettes with special regard to the formation of nicotine content; excerpts from an article. Musz elet 17 no.20:15 27 S '62.

L 36557-66 EWT(1)/EWT(m)/EWP(t)/ETI IJP(c) AT/JD

ACC NR: AP6015764 (A,N) SOURCE CODE: UR/0048/66/030/005/0778/0780

AUTHOR: Vertsner, V. N.; Lumonov, R. I.; Chentsov, Yu. V.

ORG: none

TITLE: The use of low velocity electrons in an electron scanning microscope /Report, Fifth All-Union Conference on Electron Microscopy held in Sumy 6-8 July 1965/

SOURCE: AN SSSR. Izvdstiya, Seriya fizicheskaya, v. 30, no. 5, 1966, 778-780

TOPIC TAGS: electron microscope, electronic scan, electron beam, electron energy

ABSTRACT: An electron scanning microscope employing an accelerating potential of from 500 to 2000 V has been developed and a pilot model has been constructed. The use of a low accelerating potential entails some deterioration of the resolving power but provides higher sensitivity to small variations of the electric and magnetic fields at the surface of the specimen. The low penetrating power of the low energy probe beam makes it possible to detect very thin films of foreign material on the surface of the specimen. Moreover, the secondary emission coefficient of some insulating materials for low energy incident electrons is close to unity, and it is accordingly possible to study such materials without first coating them with metal. A cross section of the pilot model microscope is shown in the figure. The beam from the electron gun 1 is focused by lenses 2 and 3 onto the specimen 5. The beam is deflected by the windings 4, the currents in which are synchronized with those in the deflection coils of the

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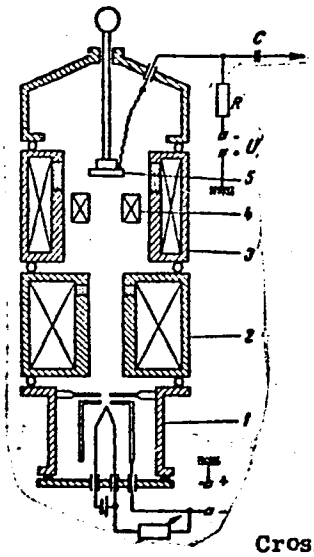
L 36557-66

ACC NR: AP6015764



kinescope on which the signal from the specimen, developed across resistor R, is displayed. A decelerating potential can be applied to the specimen holder in order further to decrease the energy of the probe electrons at the specimen. The diameter of the probe beam at the specimen was 1 micron, and the instrument was found to be sensitive to a variation of 0.2 V in the potential at the surface of the specimen. The size of the raster on the specimen could be varied from 12 x 16 mm to 0.3 x 0.4 mm, corresponding to magnifications on the kinescope screen ranging from 17 to 700. Several photographs recorded with the instrument are presented. Orig. art. has: 5 figures.

Cross section of low velocity electron scanning microscope

SUB CODE: 20/ SUBM DATE: 00/ ORIG REF: 001/ OTH REF: 000

Card 2/2

LUKOV, F. O. AND OTHERS

Sugar - Manufacture and Refining

Sugar industry in the Volga area. Sakh. prom. 26 no. 2, 1952

Monthly List of Russian Accessions, Library of Congress, June 1952. UNCLASSIFIED.

LUMPE, V. Ye.

USSR/Miscellaneous - Theses

Card 1/1 Pub. 128 - 24/26

Authors : .....

Title : Abstract of theses

Periodical : Vest. mash. 2, 108-109, Feb 1954

Abstract : The following abstracts of theses are presented: Anson, P. I. - Experimental investigation of the strength of cylinder flange joints for high-pressure turbines; Sharin, Yu. S. - The investigation of certain economical processes in cutting metals at various speeds and feeds; Kotikova, E. T. - The effect of cleaning with a blast of metal-shot on the strength of machine components; Lumpe, V. E. - The working of holes with an electric spark method; and Nefedov, A. F. - The investigation of the influence of microfinished surfaces on the wear of cylinders of interhal combustion engines.

Institution : .....

Submitted : .....

LUMPOV, I. M. 600

1. LUMPOV, I. M.

2. USSR (600)

"Rail-reinforced Linings of Mills at the Krasnoural'sk Concentration Plant" Tsvet. Met. 14, No 9, September 1939.

9. [redacted] Report U-1506, 4 Oct 1951.

LUMPOVA, V.M.

Origin of cell of induced sarcoma from acellular live substances. Arkh. pat., Moskva 14 no. 5:40-45 Sept-Oct 1952. (CLML 23:3)

1. Of the Oncological Clinic, Sverdlovsk Institute of Physical Therapy Methods (Scientific Supervisor -- Prof. L. M. Ratner).

LUMPOVA, V. M

"New Data on the Histogenesis of Experimentally Induced Sarcomas." Cand Med Sci, (no inst affiliation), Sverdlovsk, 1953. (RZhBiol, No 5, Mar 55)

So: Sum. No. 670, 29 Sep 55--Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (15)

LUMPOVA, V.M., kand.med.nauk

Isolated lymphogranulomatosis of the stomach. Khirurgiia 35 no.2:42-46 F '59. (MIRA 12:5)

1. Iz gospital'noy khirurgicheskoy kliniki (zav. - chlen-korrespondent AMN SSSR zasluzhennyy deyatel' nauki prof. A.T.Lidskiy) Sverdlovskogo meditsinskogo instituta.
(HODGKIN'S DISEASE, case reports, stomach (Rus))
(STOMACH NEOPLASMS, case reports, Hodgkin's dis. (Rus))

LUMPOVA, V.M., kand.med.nauk (Sverdlovsk)

Some problems in thyroid gland pathology. 14a Prob. endok. i gorm. 8 no.2:80-87 Mr-Ap'62. (MIRA 16:7)

1. Iz kafedry gospital'noy khirurgii (zav.-zasluzhennyy deyatel' nauki chlen-korrespondent AMN SSSR Prof. A.T.Lidskiy)Sverdlovskogo meditsinskogo instituta.
(THYROID GLAND—DISEASES)

S/124/63/000/001/043/080
D234/D308

AUTHOR: Lun', Ye.I.

TITLE: An elastic half-plane with a circular hole reinforced by a rigid ring

PERIODICAL: Referativnyy zhurnal, Mekhanika, no. 1, 1963, 8, abstract 1V50 (Zb. robit aspirantiv Mekhan.-matem. ta fiz. fak. L'vivs'k. un-t, 1961, no. 1, 53-57 (Ukr.))

TEXT: The solution of the problem of stress distributions in an elastic half-plane with a circular hole reinforced by a rigid ring was given in the abstracter's papers (I.G. Aramanovich, Dokl. AN SSSR, 1955, v. 104, no. 3, 372-375 - RZhMekh, 1957, no. 8, 9286) and that of I.O. Prusov (Nauk. zap. L'vivs'k. un-t, 1957, v. 44, 17-21 - RZhMekh. 1958, no. 8, 9056). The present paper considers the particular case when the reinforced ring is absolutely rigid. A numerical example is given.
[Abstracter's note: Complete translation]
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LUNA-GWIAZDOWSKI, Maciej. prof. dr

Cosmic vehicle with a two-person crew. Problemy 20 no. 4: 194-196 '64.

LUNACEK, A.

Results of the analysis of disability in Breclav District. p. 320.

CESKOSLOVENSKE ZDRAVOTNICTVI. Praha, Czechoslovakia. Vol. 7, no. 5, July (i.e.June) 1959.

Monthly list of East European Accessions (EEAI) LC, Vol. 9, no. 1, January 1960.

Uncl.

LUNACEK, Alexandr, MUDr.

Evaluation of district disability analysis. Cesk. zdravot. 7 no.6: 320-323 July 59

1. Predseda OPKDZ Breclav
(HANDICAPPED - statistics)

LUNACEK, J.

"Improved Work in the Fields of the Hradec Kralove Area." p. 5. (CESKOSLOVENSKE STATNI STATKY, Vol. 3, no. 16, Apr. 1951, Praha, Czechoslovakia)

So: Monthly List of East European Accessions, LC, Vol. 3, No. 5, May 1954/Unclassified

RYABENKO, A.Ya., glavnyy red.; VINOGRADOV, A.P., red.; VOL'FKOVICH, S.I., red.; ZHAVORONKOV, N.M., red.; IVANOV, M.I., red.; KISELEV, V.S., red.; LUNACHARSKAYA, I.A., red.; MEDVEDEV, S.S., red.; MEL'NIK, B.D., red.; PLANOVSKIY, A.N., red.; TOPCHIYEV, A.V., red.; ROMM, R.S., red.; POGUDKIN, P.V., tekhn.red.

[Chemical industry of the U.S.S.R.] Khimicheskaia promyshlennost' SSSR. Moskva, Gos.nauchno-tekhn.izd-vo khim.lit-ry, 1959. 457 p. (MIRA 13:4)

1. Russia (1923- U.S.S.R.) Gosudarstvennyy nauchno-tekhnicheskiy komitet.
(Chemical industries)

L 12941-63 EWG(k)/EWT(l)/BDS/EEC(b)-2/ES(w)-2 AFFTC/AFWL/ASD/ESD-3/
SSD Pz-4/Pi-4/Po-4/Pab-4 IJP(C)/AT

ACCESSION NR: AP3003920 S/0259/63/000/006/0006/0006 84

AUTHOR: Lunacharskaya, Irina (APN correspondent)

TITLE: Fractions of stellar seconds [Plasma containment]

SOURCE: Nauka i tekhnika, no. 6, 1963, 6

TOPIC TAGS: controlled thermonuclear reaction, magnetic mirror machine, PR-5 mirror machine, plasma containment, plasma physics, thermonuclear reaction

ABSTRACT: A group of experimenters, headed by Academician Lev Artsimovich and including Mikhail Ioffe, Yuriy Bayborodov, Ryurik Sobolev, and Vsevolod Petrov of the Otdel plazmenny*kh issledovaniy Instituta atomnoy energii im. Kurchatova Gosudarstvennogo komiteta po ispol'zovaniyu atomnoy energii SSSR (Plasma Research Department, Atomic Energy Institute of the State Committee on the Utilization of Atomic Energy, SSSR) built the improved PR-5 mirror machine and succeeded in containing plasma for 10 msec at 40×10^6 K and a density of 10^{10} particles/cm^3. The Pr-5 has a complex magnetic field configuration characterized by increasing field intensity in both radial and axial directions; this is achieved by a system of axial conductors in addition to the usual helical windings. Plasma is injected

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into a vacuum chamber several tens of liters in volume and is then heated. The complex field machines were conceived several years ago by Artsimovich, Boris Kadomtsev, Corresponding Member AN SSSR, and others.

ASSOCIATION: non

SUBMITTED: 00 DATE ACQ: 07Aug63 ENCL: 00

SUB CODE: PH NO REF SOV: 000 OTHER: 000

Card 2/2

VOROPAYEVA, S.D.; GEL'GOR, V.I.; LUNACHARSKAYA, T.V.

Mechanism of the development of staphylococcal drug resistance. Antibiotiki 8 no.5:455-460 My '63 (MIRA 17:3)

1. Kafedra mikrobiologii (zav. - prof. M.N. Lebedeva) I Moskovskogo ordena Lenina meditsinskogo instituta imeni I.M Sechenova.

LUNACHARSKIY, A.

Photography and our culture. Sov.foto. 19 no.8:33-34
Ag '59. (MIRA 13:1)
(Leningrad--Photography)

AUTHOR : Lunacharskiy, N.N.

"Effect of EMF with Alternating Parameters on a Self-Oscillating System," A-U Sci Conf dedicated to "Radio Day," Moscow, 20-25 May 1957.

PERIDOICAL: Radiotekhnika i Electronika, Vol. 2, No. 9, pp. 1221-1224, 1957, (USSR)